

1 Amendments to the Claims:

2 This listing of claims will replace all prior versions, and
3 listings, of claims in the application using (Original) (Currently
4 Amended) (New) (Canceled) nomenclature, as recited in the below
5 listing of claims. Please amend claims 4 and 11.
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7 1.(Original) A system for communicating an analog input signal as
8 a modulated binary laser signal over a communication medium
9 recovered as an digital output signal, the system comprising

10 a sigma delta modulator for receiving the analog input signal
11 and modulating the analog signal into a modulated symbol signal,

12 a transmitter for converting the modulated symbol signal into
13 the modulated binary laser signal, and for transmitting the
14 modulated binary laser signal over the communication medium,

15 a receiver for receiving and detecting the modulated binary
16 laser signal for providing a received symbol signal, and

17 a digital filter for filtering the symbol signal into
18 the digital output signal.
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20 2. (Original) The system of claim 1 wherein the transmitter
21 comprises,

22 a symbol to binary converter for converting the modulated
23 symbol signal from the sigma delta modulator into a converted
24 digital signal, and

25 a pulse width modulator for modulating the laser signal by the
26 converted digital signal into the modulated binary laser signal as
27 a pulse width binary modulated laser signal communicated over the
28 communication medium.

1 3. (Original) The system of claim 2 wherein the receiver comprises,
2 a pulse width detector receiving the pulse width modulated
3 binary laser signal and for providing a detected binary signal, and
4 a binary to symbol converter for converting the detected binary
5 signal into the received symbol signal.

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8 4. (Currently Amended) The system of claim 3 wherein,
9 the pulse width detector is a pulse width quantizer detector,
10 the detected binary signal is a detected quantized signal, and
11 the binary to symbol converter converts the detected quantized
12 signal into the received symbol signal.

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15 5. (Original) The system of claim 1 further comprising,
16 a timing recovery loop for generating a timing signal from the
17 receive symbol signal for clocking the digital filter.

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20 6. (Original) The system of claim 1 wherein,
21 the sigma delta modulator is a first order sigma delta
22 modulator.

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24 7. (Original) The system of claim 1 wherein,
25 the sigma delta modulator is a second order sigma delta
26 modulator.

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1 8. (Original) The system of claim 1 wherein the communication
2 medium is a fiber optic.

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4 9. (Canceled)

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6 10. Canceled)

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8 11. (Currently Amended) A system for communicating an analog input
9 signal as a pulse width modulated binary laser signal over a
10 communication medium recovered as a digital output signal, the
11 system comprising

12 a sigma delta modulator for receiving the analog input signal
13 and modulating the analog signal into a modulated symbol signal,

14 a transmitter for converting the modulated symbol signal into
15 a converted digital signal for pulse width modulating a laser
16 signal into the pulse width modulated binary laser signal, and for
17 transmitting the pulse width modulated binary laser signal over the
18 communication medium,

19 a receiver for receiving and detecting the pulse width
20 modulated binary laser signal to provide a detected binary signal
21 and for converting the detected binary signal into a received
22 symbol signal, and

23 a digital filter for filtering the symbol signal into
24 the digital output signal.

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1 12. (Original) The system of claim 1 wherein the modulated digital
2 laser signal is asynchronously communicated over the communication
3 medium.

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5 13. (Original) The system of claim 11 wherein the modulated digital
6 laser signal is asynchronously communicated over the communication
7 medium.

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